

I CLAIM:

1. A flow averaging probe for measuring fluid flow, comprising:
  - an elongate hollow probe;
  - a plurality of apertures disposed on said probe for receiving fluid flow therethrough;
  - sensor means proximate said apertures for sensing accumulated fluid flow;
  - transmitter means for transmitting sensed data from said sensors;
  - signal processing means for processing transmitted data; and
  - discharge means for discharging fluid sensed by said sensor means and of said probe.
2. The probe as set forth in claim 1, wherein said probe includes connection means for connecting a plurality of said probes together.
3. The probe as set forth in claim 1, wherein said transmitter means and said signal processing means are integral with said probe and mounted integrally therewith.
4. The probe as set forth in claim 1, wherein said apertures are equidistantly spaced along a longitudinal axis of said probe.
5. A flow averaging probe for measuring fluid flow in a conduit, comprising in combination:
  - a conduit for transporting a fluid;

an elongate hollow probe releasably connected within said conduit;

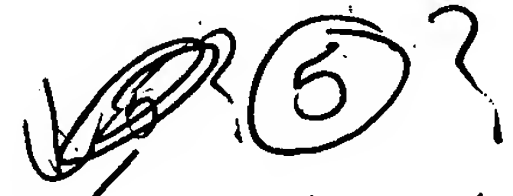
a plurality of apertures disposed on said probe for receiving fluid flow therethrough;

sensor means proximate said apertures for sensing accumulated fluid flow;

transmitter means for transmitting sensed data from said sensors;

signal processing means for processing transmitted data; and

discharge means for discharging fluid sensed by said sensor means and of said probe.

6. The combination as set forth in claim 5, wherein said probe includes connection means for connecting a plurality of said probes together.
7. The combination as set forth in claim 5, wherein said apertures are equidistantly spaced along a longitudinal axis of said probe. 
8. The combination as set forth in claim 1, wherein said transmitter means and said signal processing means are integral with said probe and mounted integrally therewith.
9. A method of measuring fluid flow in a conduit, comprising:

providing a probe having a hollow elongate body with a plurality of apertures therethrough and sensor means proximate said apertures, said apertures for receiving fluid therethrough;

positioning said probe within a fluid stream to be measured;

collating individual fluid streams from said apertures within said probe;

activating said sensor means by fluid entering said apertures to obtain data generated by a collated stream; and

averaging obtained data to determine a representative flow rate.

10. The method as set forth in claim 9, wherein fluid pressure is sensed at each aperture of said plurality of apertures.
11. The method as set forth in claim 9, further including the step of generating a flow profile with averaged data.
12. The method as set forth in claim 9, further including the step of correcting for variations in fluid pressure at each of said apertures.
13. The method as set forth in claim 9, further including the step of connecting a plurality of probes for determining flow data.
14. The method as set forth in claim 9, further including the step of averaging data from said plurality of said probes.